KENWOOD

Listen to the Future

ADVANCED WIRELESS COMMUNICATIONS

TK-7160(H)/8160(H)

Compact VHF/UHF FM Mobile Radios

FleetSync®

GENERAL FEATURES

- 25 / 50 W (136-174 MHz) Models
- 25 / 45 W (450-490 MHz) Models
- Conventional Zones
- 128 Channels / 128 Zones
- Single Priority Scan
- Single / Multi-Zone Scan
- 8-Character Alphanumeric Aliases
- Backlit LCD & Keys
- Function/Status LCD Icons
- Transmit /Busy / Call Alert LED
- 9 Programmable Function Keys
- Emergency / AUX Key
- Enhanced Kenwood Audio
- Front Panel Speaker
- Companded Audio
- Voice Inversion Scrambler Built-in
- Encryption / ANI Board Control
- Emergency Call Features
- QT / DQT
- Operator Selectable Tone
- Two-Tone Decode
- Single & Two-Tone Encode
- DTMF Encode / Decode[1]
- Special Alert Tone Patterns[2]
- Call Key[2]
- Busy Channel Lockout
- Time Out Timer
- Timed Power Off
- Accessory Interface Cable Option[4]
- 8 Programmable I/O Ports[4]
- Ignition Sense[5]
- Public Address / Horn Alert Option[6]
- MIL-Spec Standard Mic
- MIL-Spec 12-Key DTMF Mic Option
- Windows® Programming & Tuning[7]
- Front Panel Field-Program Mode
- Cloning
- MIL-STD-810 C/D/E/F

FleetSync®

- PTT ID Digital ANI
- Selective Call & Group Call
- Status Messaging
- Emergency Status
- Caller ID Display
- Input / Output Status Messages
- FleetSync® GPS Ready[8]
- Send GPS PF Key
- PTT ID & Emergency GPS Reporting[8]
- Ignition On/Off GPS Reporting[5, 8]

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Options

- **KMC-35** Microphone (supplied microphone)
- **KCT-36** 3m Extension Cable (for KCT-39)
- **KES-S** External Speaker (requires KAP-2)
- **KPS-15** DC Power Supply
- **KMC-36** Keypad Microphone
- **KCT-39** Connection Cable
- **KMB-10** Key Lock Adapter
- **KD5-100** Mobile Data Terminal (requires KCT-39 option)
- **KMC-9C** Control Station Desktop Microphone
- **KAP-2** Horn Alert/Public Address Relay Unit
- **KLF-2** Line Noise Filter
- **KGP-2A/2B** GPS Receiver / Modem Unit (requires KCT-39 option) — GPS-2A, GPS-2B
- **KCT-18** Ignition Sense Cable (requires KCT-39 option)
- **KES-3** External Speaker
- **KP5-10A** DC Power Supply

All accessories and options may not be available in all markets. Contact an authorized Kenwood dealer for details and complete list of all accessories and options.

Specifications

Model	TK-7160	TK-7160H	TK-8160	TK-8160H
GENERAL				
Frequency Range	136~174 MHz		450~490 MHz	
Number of Channels				
Zone	Max.128 per Radio			
Channel	Max.128 per Zone			
Channel Spacing				
Wide	25 kHz, 30 kHz		25 kHz	
Narrow	12.5 kHz, 15 kHz		12.5 kHz	
Operating Voltage	13.6 V DC±15 %			
Current Drain				
Standby	0.4 A	0.4 A	0.4 A	0.4 A
Receive	1.0 A	1.0 A	1.0 A	1.0 A
Transmit	8.0 A	14.0 A	8.0 A	14.0 A
Duty Cycle	Transmit: 20 %			
Operating Temperature Range	-22 °F ~ +140 °F (-30 °C ~ +60 °C)			
Frequency Stability	±0.00025 % (-22 °F ~ +140 °F)			
Antenna Impedance	50 Ω			
Channel Frequency Spread	38 MHz		40 MHz	
Dimensions (W x H x D), Projections not included	6-5/16" x 1-11/16" x 5-3/8" (160 mm x 43 mm x 137 mm)			
Weight (net)	2.6 lbs. (1.18 kg)			
FCC ID	K4437663110	K4437663210	K4437673110	K4437673210
IC Certification	—	282F-37663210	—	282F-37673210

Model	TK-7160	TK-7160H	TK-8160	TK-8160H
RECEIVER (Measurements made per EIA/TIA-603)				
Sensitivity (12dB SINAD)				
Wide	0.28 µV			
Narrow	0.35 µV			
Selectivity				
Wide	75 dB			
Narrow	65 dB			
Intermodulation Distortion				
Wide	70 dB			
Narrow	60 dB			
Spurious Response	75 dB			
Audio Output (4 Ω Impedance)	4 W with less than 5 % distortion			
TRANSMITTER (Measurements made per EIA/TIA-603)				
RF Output Power	5 W / 25 W	25 W / 50 W	5 W / 25 W	25 W / 45 W
Spurious Response	70 dB			
Type of Emission				
Wide	16K0F3E			
Narrow	11K0F3E			
FM Hum & Noise				
Wide	45 dB			
Narrow	40 dB			
Microphone Impedance	600 Ω			
Audio Distortion				
Wide	3 %			
Narrow	5 %			

* FleetSync® is not compatible with FleetSync® II offered in some Kenwood products.
** The 20-pin 160-Series Easy Option Port is a not compatible with the Kenwood 26-pin Easy Option Port connector/options. The traditional PCB connections are available for wired-in boards not having a 20-pin Easy Option Port connector.
FleetSync® is a registered trademark of Kenwood Corporation.
Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.
All other trademarks are property of their respective owners.

Kenwood follows a policy of continuous advancement in development. For this reason specifications may be changed without notice.

Applicable MIL-STD

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures	MIL 810F Methods/Procedures
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I
Rain*	506.1/Procedure II	506.2/Procedure II	506.3/Procedure II	506.4/Procedure III
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, II
Vibration	514.2/Procedure VIII, X	514.3/Procedure I	514.4/Procedure I	514.5/Procedure I
Shock	516.2/Procedure I, II, III, V	516.3/Procedure I, IV, V	516.4/Procedure I, IV, V	516.5/Procedure I, IV, V

* MILSTD-810 506.X Procedure II "rain drip" specifications are conditional on installed KMC-35/36 microphones and supplied accessory connector covers.

footnotes from front:

[1] DTMF includes PTT ID, Emergency ANI, Manual Encode (KMC-36), Auto-Dial (9 numbers) & Stun.
[2] Special Alert Tone Patterns operate for 2-Tone, DTMF, FleetSync® selective call decode.
[3] Call Key 1 & 2: operates for 2-Tone, DTMF and FleetSync® status encode.
[4] KCT-39 required for 4 CH remote control, ignition sense (KCT-18), KGP-2A/B, KDS-100, data modems, external GPS interface.
[5] KCT-39 & KCT-18 ignition sense cable options required.
[6] KAP-2 required: Horn Alert operates for FleetSync®, 2-Tone or DTMF selective call decode.
[7] KPG-99D program software required: Windows®98/ NT/2000/ MeXP compatible; English/Spanish program screen languages.
[8] FleetSync® GPS features require a KCT-39 and an external GPS receiver with NMEA TTL level serial data output; set Port 1 & 2 (inputs) to "GPS NMEA."

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20809 Kensington Blvd Lakeville,MN 55044 877-202-5060 www.advancedwireless.com
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